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Wm. C. Cusick

Rhodora

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THE NEW ENGLAND BOTANICAL CLUB

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WILLIAM CONKLIN CUSICK

HAROLD ST. JOHN.

(With portrait.)

EASTERN OREGON is a region of high rugged mountains, sandy deserts, and deep hot river canyons. The settlers are few and scattered, yet the flora of this vast region is already well known. The tireless zeal of one man, both farmer and botanist, has accomplished this feat of exploration. He was William Conklin Cusick, and it is with sincere regret that his death is recorded.[1]

Mr. Cusick was born in Adams County, Illinois, on Februray 21st, 1842. He was named for his great grandfather on his father's side. His grandfather, Henry Cusick, a weaver by trade, left the north of Ireland for New York City, probably after the Revolutionary War.

Mr. Cusick's early boyhood was spent in Illinois, where he attended a country school, from the age of four to that of eleven. Then his parents, in 1853, joined the great westward surging tide of settlers. With an ox-team they crossed the "Oregon Trail." William was the eldest child, so, during a large part of this journey, he walked and drove the oxen. "We got to the south pass of the Rocky Mountains, which was then the eastern line of Oregon on the 4th of July. I remember seeing *Calochortus Nuttallii* growing among the sage brush in the valley of the Snake River." Ascending the Powder River they went near North Powder, where later Mr. Cusick took up a ranch. Crossing the dividing ridge they descended the valley of the Grande

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[1] The writer wishes to acknowledge valuable assistance in the preparation of this biography from Mrs. S. F. Cusick, Mr. W. W. Eggleston, Mr. J. C. Nelson, and Dr. B. L. Robinson.

Ronde River past Union, where he spent his last days. From there they followed the "Oregon Trail" through the Blue Mountains to Walla Walla, then down the south bank of the Columbia River. They settled near Kingston, Linn County, Oregon.

In this new home, he continued his schooling. When he was 20 years old he went to the Lacreole Academy at Dallas in Polk County, where he continued his studies for a year and a half. Then for two years young Cusick himself taught school. The succeeding year he returned to the same academy. In 1864 he went to Willamette University where he was enrolled as a Junior. Here he studied mathematics, higher algebra, physics, and geology. After finishing this year at college, he enlisted as a volunteer in the Union Army. He was assigned to the Quartermaster Corps, and was stationed at Fort Lapwai, Idaho. Later he was transferred to a camp near Ukiah, Umatilla County, Oregon, and then to Camp Polk, near Sisters, Crook County, Oregon. "In '65 (summer of) I was 'soldiering' in those (Blue) Mt'ns and we found these onions (*A. Geyeri*) a valuable addition to our stock of 'Bacon + beans'." Mr. Cusick told the writer about this part of his life. There was little for a soldier to do at this isolated fort, and time hung heavy on his hands.

Through a friend in Portland, Oregon, he obtained a copy of Dr. Asa Gray's "First Lessons in Botany." "I . . . studied it pretty carefully one winter. Since then I have got most of Dr. Gray's works and the most I have learned from books I have got from them." This little book supplied the stimulus. By explaining their morphology it opened to him the study of the taxonomy of the hundreds of plants flowering on every side. He was one of that best type of botanists, the kind that is born, not made. When only eleven years old he had begun to notice the flowers, but at no time in his schooling did he have any instruction in botany. Born with the love of botany, his extensive knowledge of it was self-taught.

Obtaining his discharge from the army in 1866, he returned to western Oregon and settled near Salem. He again turned to teaching, but at the same time busied himself with market gardening.

In the fall of 1872, with his brother Frank, he returned to eastern Oregon. Together they acquired a ranch on the Powder River, where they lived and worked jointly. At this time, William began to pay more attention to his botanical work. As he wrote, "I did little in studying or collecting till coming to eastern Oregon in 1872.

I was so fortunate as to make the acquaintance of Dr. R. D. Nevius, and in the fall of 1880 Dr. S. Watson spent a few days at my cabin. I got much botanical information from these gentlemen." In 1887 the brothers sold this place and both moved to North Powder where they bought adjoining ranches. The two brothers still continued coöperating in the farm work. William's ranch, however, consisted largely of pasture land. Consequently he was able to leave his farm work and go on extended botanical trips.

His first lengthy trip was in 1885 when he went to Steins Mountains in Malheur County. The year 1886, he was able to devote the whole season to collecting. He gathered his specimens in sets of twelve and made arrangements to sell his duplicates. This proved to be profitable enough so that he followed this scheme almost every year afterwards. Following a period of several years when he was prevented from doing any extensive botanical work, he resumed this activity in 1896. In August of that year, with Prof. C. V. Piper, he made a collecting trip into the Wallowa Mountains. In 1897 he revisited Malheur County and pushed on to Harney County. In 1898 he revisited Steins Mountains, and continued as far as the Santa Rosa Mountains of Nevada. The next year, 1899, he explored the Seven Devil Mountains in western Idaho. In 1901, with his step-son Oscar, he explored the eastern and southeastern counties of Oregon. The following year, 1902, accompanied by his nephew R. G. Cusick, he worked the central part of the State, then the southwestern, as far down as the California line, and returned by Crater Lake. On returning from this trip he wrote, "Southwestern Oregon is certainly a very interesting region but I fear I cannot go there again. I think this is my last season of collecting to sell. There is not enough pay in it. Expenses are very heavy and after these are paid there isn't much left for me." This was his last long trip. On his first ones he went alone, but in later years his step-son, O. A. Cusick, or his nephew, R. G. Cusick, accompanied him.

Year after year, he explored and made collections from the Blue Mountains and the Wallowas. These trips, though often lasting several weeks, were usually made alone. He never carried fire arms or fishing tackle as he felt that when unmolested the wild animals would not trouble him, and that he was too busy with his botanical collecting to waste any time in fishing. He would load his botanical outfit and camping materials on a pony and start off into the most rugged mountains, or with a team of horses and a wagon into the bleakest desert, and be gone for weeks at a time. He would reappear laden down with specimens, carefully selected and well prepared. During the winter he would identify them. Such as were too puzzling he referred to Dr. Watson, Dr. Greenman, Prof. Piper, and other specialists. On reading over the files of letters written to these botanists, one occasionally finds letters expressing irritation or indignation that this particular botanist had been slow in sending the list of determinations that Cusick had requested. Until they were named, he could not sell his specimens, so he was naturally anxious to receive the list of identifications. He probably did not realize how many others were asking similar favors of these busy people.

The worth of his work was abundantly recognized by other botanists. In 1908 Prof. M. E. Jones named a new genus of Umbelliferae, *Cusickia*, in his honor. Many species have been named *Cusickii*, after him, so many, in fact, that the writer has not attempted to compile a list of them.

Though thus active in supplying the material on which others paved important records, he was himself exceedingly modest in the matter of publication. So far as can be learned only two articles from his pen have a botanical bearing and both of these are short notes, namely: Forest Fires in Oregon, Bot. Gaz. viii. 176 (1883), and Ribes aureum, Bot. Gaz. xv, 24 (1890).

In 1913, he sold his own herbarium to the University of Oregon, at Eugene, Oregon. The greater part of this winter he spent at Eugene, working over his specimens for the University.

The next year he felt the lack of his herbarium so keenly that he started in again with the greatest energy to assemble a new one. In the fall of 1921 when the writer visited Mr. Cusick at Union, Oregon, his collection had grown to 3600 sheets, fully half of them being mounted. By this time he had had a stroke, and his eyesight had failed so that he could no longer work on his specimens. Consequently he sold these collections to the State College of Washington at Pullman, Washington. His sight and his strength had begun to fail, but his interest was as keen as ever. He told the writer with the greatest enthusiam of interesting regions that he was planning to visit. Together we talked of a future trip to the alpine slopes of Eagle Cap, or the rugged ravine of the Imnaha, though it was evident at the time that he would never make another long collecting trip.

He was married in October, 1892, to Mrs. Emma A. Alger, who died in February, 1894. When his wife died he was left with a mortgaged home and two children by her former marriage, Philip Alger aged 18, and Oscar, aged 9 years. He supported Philip at the Oregon Agricultural College till, when nearly ready to graduate, the young man left to be married. Young Oscar Alger, he adopted as Oscar Cusick. This younger boy was also sent to college, but he too left before graduating, to get married. It is not generally known, but it was these responsibilities which kept Mr. Cusick from doing more botanical work during this part of his life.

Mr. Cusick always took an active part in Church and in civic affairs. His neighbors knew that he went off on long trips to pick flowers, but they did not hold that against him. His modesty was so great that he seldom talked about this work, lest it should be interpreted as boasting. He would never allow any account of his life or work to appear in the local papers. It was very nearly the same with his family. Of course they knew how much time he spent on his work, but it seemed to them that he was just messing around with his specimens. The only indication they saw of the importance of his botanical work was the occasional visit from Dr. Watson or Prof. Piper or some government specialist from Washington, D. C., and they little realized that Mr. Cusick's name and work were known to scientists half way around the world.

Mr. Cusick died at his brother's home, Union, Oregon, October 7, 1922. He is survived by one brother, S. F. Cusick, of Union, Oregon; one sister, Mrs. S. E. Daley, of Scio, Oregon; and two half-sisters, Mrs. Hattie Dodd, of Middleton, Idaho; and Mrs. A. N. Busick, of Union, Oregon.

State College of Washington, Pullman, Wash.

NOTES ON THE DISTRIBUTION OF NAJAS IN NORTHEASTERN AMERICA.

M. L. Fernald.

In studying the four species of *Najas* which occur in the northeastern states and Canada so many discrepancies have been found between the published ranges and the occurrence of these plants as shown by specimens, that the following notes seem worth recording.

NAJAS MARINA L. (*N. major* All.). This widely dispersed species of brackish or fresh waters of tropical and temperate regions is rare in North America and in the Atlantic States is as yet known north of Florida only from central New York. From Morong's treatment[1] it would be inferred that the species is there confined to the northern end of Cayuga Lake and adjacent marshes, but there are other long-known stations. In 1864 the species "was discovered in Onondaga Lake, first by Judge G. W. Clinton, on the northern border of the lake (between Salina and Liverpool), and soon after by Mr. John A. Paine, Jr., on its western side."[2] In his *Catalogue*, Paine[3] gives a very detailed account of the Onondaga Lake stations. The plant is found in streams entering the lake; but "It abounds, however, in the lake, in water ten to twenty-five feet deep; most luxuriantly along the edge of a sudden descent of the bottom, at a distance from shore. When the water is clear and still, the plants can be seen growing on the bottom, branching in all directions from the root. But the best specimens come from the deepest water, out of sight." In 1912 Mrs. Goodrich[4] reported it also from Tulley Lake, Onondaga Co. In 1865 the second New York region for the species was discovered, in Irondequoit Bay of Lake Ontario. Material from this region was sent to Dr. Gray by C. M. Booth but in recording the discovery Gray[5] accredited it to E. J. Pickett. The stations about the northern end of Cayuga Lake are either in shallow water of marshes or in lake-water, while in Wayne County Peck found it in "Seneca river near Savannah."[6]

There are reports of the plant from Michigan and Minnesota but no material from the former region has been examined by the writer, although the Minnesota record (Lake Minnewaska, *B. C. Taylor*) is supported by good material; but, in view of the somewhat wide dispersal of *Najas marina* in the subsaline waters of central New York, it is certain that we should watch for it in similar habitats nearer the Atlantic coast. The probability of finding it along our coast is emphasized by the occurrence with it in or about Onondaga

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[1] Morong, Mem. Torr. Bot. Cl. iii. No. 2: 58, 59 (1893).

[2] Gray, Am. Journ. Sci. ser. 2, xxxix. 107 (1865).

[3] J. A. Paine, Cat. Pl. Oneida Co. and Vic. 80 (1865).

[4] L. L. H. Goodrich, Fl. Onondaga Co. 30 (1912).

[5] Gray, Am. Journ. Sci. ser. 2, xli. 131 (1866).

[6] Peck, N. Y. State Mus. Nat. Hist. Ann. Rep. 1872, 88 (1874).

Lake of such maritime plants as *Zannichellia, Ruppia, Triglochin maritima, Diplachne maritima* Bicknell,[1] *Scirpus campestris,* var. *novae-angliae, Juncus Gerardi, Salicornia europaea, Chenopodium rubrum* and *Ranunculus Cymbalaria.*

N. FLEXILIS (Willd.) Rostk. & Schmidt. Morong's very sweeping assertion, that *N. flexilis* "is widely diffused in North America, being found in Canada, from the Atlantic to the Pacific, and equally common in the United States and Mexico. It is as widely distributed in the Old World,"[2] needs severe pruning on all sides. The writer has before him not only the material in the Gray Herbarium and the herbarium of the New England Botanical Club, but that of the Missouri Botanical Garden (because of Englemann's specia linterest in the genus) and of the University of Minnesota. In all this mass of material there are no clearly identifiable specimens from south of Maryland, Ohio, Indiana, Illnois and Iowa,[3] while to the west of Iowa and Minnesota the species seems to be only in Idaho, Oregon, Washington and British Columbia.[4] Instead of being "as widely distributed in the Old World," *Najas flexilis* is there one of the most localized of species, being confined to 3 areas in Ireland,[5] 1 or 2 in Scotland[6] and a few in the Baltic region.[7] In fact the great rarity and restricted range of *N. flexilis* in Europe and the discovery there of numerous fossil beds containing fruits of the species[8] have made this plant one of unusual interest in Europe since it seems there to be a localized survivor of the formerly wide-spread North American flora which has become so generally obsolete in Europe.

N. GUADALUPENSIS (Spreng.) Morong is of much wider range northward than has been supposed. Bicknell has recorded it from

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[1] Bicknell, Bull. Torr. Bot. Cl. xxxv. 195 (1908).

[2] Morong, l. c. 60 (1893).

[3] Rendle cites a specimen from Missouri but all the Missouri plants I have examined seem to be *N. guadalupensis.*

[4] This isolation in the northwestern states or British Columbia suggests other ranges, for example, that of *Megalodonta Beckii* (Torr.) Greene (*Bidens Beckii* Torr.): Quebec and Nova Scotia to New Jersey, west to Missouri and eastern Manitoba, also in Washington; or *Potamogeton Robbinsii* Oakes: New Brunswick to Maryland, west to Indiana, Michigan and Ontario, and in northwestern Wyoming, Idaho, Oregon, Washington and southern British Columbia.

[5] Praeger, Irish Top. Bot. 330 (1901).

[6] Watson, Top. Bot. 425 (1883); Praeger, Tourist's Fl. W. Ireland, 198 (1909).

[7] See Rendle, Trans. Linn. Soc. ser. 2, Bot. v. 404 (1899).

[8] See Rendle l. c.

Nantucket,[1] Pennell collected it on Martha's Vineyard (No. 3486, distributed as "*Potamogeton foliosus* Raf. ?"), Fernald and Long got it on Block Island, Charles Wright had material which he left (now in herb. N. E. Bot. Cl.) marked simply "Connecticut," and St. John collected it in Suffolk Co., Long Island (no. 2541, distributed as *N. flexilis*). West of the Alleghenies it extends northward to the Great Lakes whence it follows eastward to Jefferson Co., New York (*Fernald, Wiegand & Eames,* no. 14,116) and in the St. Lawrence to Chambly Co., Quebec, (*Victorin,* nos. 8164, 11,347); and farther west it reaches Minnesota, Nebraska and Oregon. Nearly if not quite all the material from the southern states and Mexico which has passed as *N. flexilis* is apparently *N. guadalupensis,* which is readily distinguished in either pistillate flower or fruit, the style of *N. flexilis* being filiform and (including the stigmas) 0.8–2 mm. long, the stouter style (and stigmas) of *N. guadalupensis* only 0.1–0.6 mm. long. The seed of *N. flexilis* is highly lustrous and obscurely marked (under high power) with 30–40 rows of more or less hexagonal reticulations, that of *N. guadalupensis* is opaque and clearly marked with 15–18 rows of mostly rectangular areolae.

The plant of the Great Lakes and the St. Lawrence here referred to *N. guadalupensis* has long been a source of perplexity. Obviously not referable to *N. flexilis* on account of its wiry and somewhat turgid quality and the flat leaves, the plant has been specially puzzling because no one who has collected it—at Wolf Lake, Indiana, and in bays of Lake Erie as well as in the St. Lawrence near Longueuil—has secured fruit. In August, 1922, the plant was found by Fernald, Wiegand and Eames in comparatively deep water of Chaumont Bay, an arm of Lake Ontario in Jefferson Co., New York. There the puzzling plant contrasted sharply with *N. flexilis* in its stiff and diffusely bushy or broom-like aspect, its almost wiry stems and branches, and its short and flat rather fleshy leaves, and in a deep purple color which suffused the whole plant. Many sheets of specimens were collected, but in the whole series only a few very scattered fruits occur. These, however, are so exactly like those of characteristic specimens from subtropical and tropical America that there is no further question regarding the identity of the plant.

The scarcity of fruit on *N. guadalupensis* in the St. Lawrence basin is doubtless due to the fact that this essentially tropical species

[1] Bicknell, Bull. Torr. Bot. Cl. xxxv. 60 (1908).

is too far north for successful fruiting but, having reached the Great Lakes by way of the Mississippi Valley, it has been able to spread northeastward into the Province of Quebec by virtue of its freely rooting stems and branches.

N. GRACILLIMA (A. Br.) Morong is one of the most distinct species of the genus on account of its straight linear-setaceous leaf-blades strongly divergent from the conspicuously auricled and scarious sheathing base and its commonly subfalcate, very slender fruits with about 24 rows of longitudinal elongate areolae. Ever since the publication of Morong's *Najadaceae of North America* it has been customary to include "Missouri (Engelmann)."[1] in the range of the species. Considerable search has failed to reveal any statement by Engelmann that the plant is found in Missouri and in order further to check the matter the Engelmann material of *Najas* was borrowed, through the kindness of Dr. J. M. Greenman, and search through this abundant material fails to reveal any specimens from west of eastern New York, New Jersey and eastern Pennsylvania. The error may easily have arisen through one of those endlessly misleading labels which bear at the top in clear print the name of the owner and his address, while the really important data is written below in an obscure hand. Thus material in Engelman's herbarium has a label like this: In print at the top, "HERB. G. ENGELMANN, ST. LOUIS MO." and below written in Engelmann's most Germanic hand "*Najas Indica* var. *gracillima.* Lake Quinsigamond, Worcester, Mass., Aug. 11, 1880. Ex Hb. Gray, 1883." It was apparently this or a similar label which led to the now almost traditional statement that *N. gracillima* (*N. indica*, var. *gracillima* A. Br. in Engelm. in Gray, Man. ed. 5, 681) occurs in Missouri. As a matter of fact the species is peculiarly localized: in muddy, peaty or sandy ponds or pools from southern New Jersey and eastern Pennsylvania northeastward near the coast to Knox Co., Maine, and locally inland to Saratoga Co., New York, (shallow water of the Hudson, above Waterford, October 21, 1922, *H. K. Svenson*), southern Litchfield and Tolland Cos., Connecticut, Worcester, Middlesex and Essex Cos., Massachusetts and Kennebec Co., Maine (Cobossee Contee Lake, August, 1898, *T. J. Battey* in herb. N. E. Bot. Cl.).

GRAY HERBARIUM.

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[1] Morong, Mem. Torr. Bot. Cl. iii. No.2: 61 (1893).

THE FORMS OF OSMORHIZA LONGISTYLIS.

S. F. Blake.

While collecting a few years ago at Cabin John, Montgomery County, Maryland, I became interested in the variation shown by the abundant specimens of sweet cicely (*Osmorhiza*) growing on a shady bank. In addition to *Osmorhiza claytoni* (Michx.) Clarke, at once recognizable by its short erect subulate styles and stylopodia, three other readily distinguishable forms occurred in about equal numbers, all with the long slender styles and stylopodia of *O. longistylis* (Torr.) DC. One of these was at once separable from all the other forms occurring by its perfectly glabrous stem. In the second the stem was densely puberulent with short spreading hairs about half a millimeter long, while in the third the stem was densely and canescently villous. Subsequent study has shown that the first of these forms, the one with glabrous stem, represents the typical *Osmorhiza longistylis* (Torr.) DC., which was described by Torrey[1] as with "stem . . . very smooth." The third was described by Professor Fernald some years ago as *Osmorhiza longistylis* var. *villicaulis*, with a range from Pennsylvania to Illinois and Kansas. The second form has never received a name.

The distinctive characters and ranges of these three variations of *Osmorhiza longistylis*, as shown by material in the National Herbarium, may be briefly stated as follows:

1. Osmorhiza longistylis (Torr.) DC. Prodr. **4**: 232. 1830 (typical form).

Myrrhis longistylis Torr. Fl. N. & M. U. S. **1**: 310. 1824.

Uraspermum aristatum β *longistyle* Kuntze, Rev. Gen. Pl. **1**: 270. 1891.

Washingtonia longistylis Britton in Britton & Brown, Ill. Fl. **2**: 530. 1897.

Stem glabrous, or slightly pubescent at the nodes.

Type locality: New York.

Distribution: "Eastern Quebec to Assiniboia, south to North Carolina, Alabama, Kansas and Colorado." Common in the District of Columbia.

2. Osmorhiza longistylis var. **brachycoma** Blake, var. nov.

Stem, petioles, and at least the lower part of branches densely puberulent with spreading hairs 0.3 to 0.8 (averaging 0.5) mm. long.

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[1] Fl. N. & Mid. U. S. **1**: 310. 1824.

Type in the U. S. National Herbarium, no. 989634, collected on slope in woods, Cabin John, Montgomery County, Maryland, 26 May 1918, by S. F. Blake (no. 6902). Duplicate in the Gray Herbarium.

Other specimens examined: Ontario: Kingston, 1895, *J. Fowler*. New York: Vicinity of North Harpersfield, Delaware County, 1906, *D. LeR. Topping* 166. Pennsylvania: *J. Hoopes*. Maryland: Cabin John, 1908, *E. S. Steele*; Plummer's Island, 1915, *P. C. Standley* 11451. District of Columbia: Banks of Canal, 1895, *C. L. Pollard* 177; High Island, 1895, *Pollard* 252; between Potomac River and Canal, Georgetown to Plummer's Island, 1899, *E. L. Morris* 41. Ohio: Niles, 1891, *R. H. Ingraham*.

3. Osmorhiza longistylis var. villicaulis Fernald, Rhodora **10**: 52. 1908.

Washingtonia longistylis villicaulis Coult. & Rose, Contr. U. S. Nat. Herb. **12**: 443. 1909.

Stem, petioles, and at least the lower part of the branches densely villous with spreading hairs 1 to 2 mm. long.

Type locality: On the Conestoga near Binkley's Bridge, Lancaster County, Pennsylvania. Type collected by A. A. Heller, 21 June 1901, in Gray Herbarium; duplicate in U. S. National Herbarium.

Distribution: Pennsylvania to Minnesota and Nebraska, south to Maryland, Missouri, and Oklahoma.

This seems to be as common in the District of Columbia and vicinity as the typical form.

Bureau of Plant Industry, Washington, D. C.

BAFFIN LAND PLANTS COLLECTED BY THE MACMILLAN EXPEDITION, 1922.

M. L. Fernald.

During MacMillan's last expedition to Baffin Land a small collection of vascular plants was made by Mr. MacMillan's chief assistant, Mr. Ralph Robinson. Although the collection consists chiefly of widespread arctic types and contains only a few species not already recorded[1] from eastern Baffin Land, it seems desirable, since there are so few records from southwestern Baffin Land, to enumerate the entire collection. The plants were collected chiefly at Bowdoin Harbor. Dates of flowering or fruiting and any other notes of special significance are appended.

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[1] For instance in J. D. Hooker's *Account of the Plants collected in Greenland and Arctic American during the Expedition of Sir Francis M'Clintock*.—Journ. Linn. Soc., Bot. v. 79–88 (1861); and James Taylor's *Notice of Flowering Plants and Ferns collected on both sides of Davis Straits and Baffin's Bay*.—Trans. Bot. Soc. Edinb. vii. 323–334 (1863).

LIST OF PLANTS FROM SOUTHWESTERN BAFFIN LAND, COLLECTED IN 1922 BY RALPH ROBINSON.

CYSTOPTERIS FRAGILIS (L.) Bernh. Bowdoin Harbor, no. 38.

THELYPTERIS FRAGRANS (L.) Nieuwl. Top of North Cliff, Bowdoin Harbor, *fruit* July 15, no. 25.

LYCOPODIUM SELAGO L. Cannon Inlet, no. 64.

ARCTAGROSTIS LATIFOLIA (R. Br.) Griseb. Shore of Cairn Lake, *flowers* July 29, no. 44 in part.

POA ABBREVIATA R. Br. Shore of Cairn Lake, *flowers* July 29, no. 44, in part.

ELYMUS ARENARIUS L., var. VILLOSUS Meyer. *E. mollis* Trin. Bowdoin Harbor, no. 18; Cape Dorset, *flowers* August 5, no. 58.

CAREX COMPACTA R. Br. Shore of Cairn Lake, *fruit* July 29, no. 45, in part.

ERIOPHORUM CALLITRIX Cham., not Anderss. Cape Dorset, *fruit* August 8, no. 56.

LUZULA CONFUSA Lindeberg. Shore of Cairn Lake, *fruit* July 29, no. 45, in part.

SALIX ANGLORUM Cham. Bowdoin Harbor, *aments showing*, May 18, *flowers and foliage*, June 4, no. 1 in part; *fruit*, July 29, no. 48.

S. CALCICOLA Fernald & Wiegand. Bowdoin Harbor, *flowers* June 4, no. 1, in part. The first collection from north of Labrador.

S. RETICULATA L. Bowdoin Harbor, *flowers*, July 29, nos. 46, 47.

OXYRIA DIGYNA (L.) Hill. Bowdoin Harbor, *flowers* July 18, no. 20.

POLYGONUM VIVIPARUM L. Seal Harbor, *flowers* July 19, no. 34; Cairn Lake, *flowers* July 29, no. 43.

CERASTIUM ALPINUM L. Bowdoin Harbor, *flowers* July 10, no. 21.

STELLARIA LONGIPES Goldie, var. EDWARDSII (R. Br.) Watson. Cape Dorset, *flowers* August 5, no. 57.

LYCHNIS APETALA L. Northwest Cape, Bowdoin Harbor, *flowers* July 14, no. 29.

SILENE ACAULIS L., var. EXSCAPA (All.) DC. Bowdoin Harbor, *flowers* July 8, no. 11.

RANUNCULUS PYGMAEUS Wahlenb. Shore, Cairn Lake, *fruit* July 30; Cape Dorset, *flowers* August 6, no. 61.

RANUNCULUS PEDATIFIDUS J. E. Sm., var. LEIOCARPUS (Trautty.) Fernald. *R. affinis* R. Br. Northwest Cape, Bowdoin Harbor, *flowers* June 16 and 27, nos. 6, 8.

DRABA ALPINA L. Canoe Cove, Bowdoin Harbor, *flowers* June 27, no. 7; Northwest Cape, Bowdoin Harbor, July 14, no. 28.

D. FLADNIZENSIS Wulfen. Bowdoin Harbor, *flowers* July 8, no. 9.

EUTREMA EDWARDSII R. Br. Bowdoin Harbor, *flowers* June 6 and July 21, nos. 5, 39.

ARABIS ALPINA L. Cannon Inlet, *flowers* August 9, no. 66.

PAPAVER RADICATUM Rottb. Bowdoin Harbor, *flowers* July 15, no. 23.

SAXIFRAGA HIRCULUS L. Northwest Cape, Bowdoin Harbor, *flowers* July 14, no. 30.

S. NIVALIS L. Seal Harbor, *flowers* July 26, no. 41.

S. CERNUA L. Tommy's Lake, *flowers* July 31, no. 51.

S. CESPITOSA L. Bowdoin Harbor, *flowers* July 10 and 14, nos. 17, 27.

S. TRICUSPIDATA Retz. Bowdoin Harbor, *flowers* July 10, no. 22.

S. OPPOSITIFOLIA L. Bowdoin Harbor, *flowers* July 4, no. 3.

CHRYSOSPLENIUM ALTERNIFOLIUM L., var. TETRANDRUM Lund. Shore, Cairn Lake, *flowers* July 28, no. 42.

POTENTILLA EMARGINATA Pursh. Bowdoin Harbor, *flowers* July 8, no. 13.

P. FRAGIFORMIS Vahl. Cape Dorset, *fruit* August 5, no. 55. The material is apparently inseparable from the Alaskan and Siberian plant.

DRYAS INTEGRIFOLIA Vahl. Bowdoin Harbor, *flowers* July 8, no. 10.

ASTRAGALUS ALPINUS L. Bowdoin Harbor, *flowers* July 10, no. 15.

OXYTROPIS CAMPESTRIS (L.) DC., var. MELANOCEPHALA Hook. Bowdoin Harbor, *flowers* July 10, no. 14.

O. ARCT~~IL~~OBiA Bunge. Bowdoin Harbor, *flowers* July 8, no. 12; Cape Dorset, *fruit* August 6, no. 59. For discussion of this species see Ostenfeld, Vasc. Pl. Arct. N. Am. 19 (1910). These seem to be the first collections of this handsome species from east of Mellville Island and Victoria Land.

EPILOBIUM LATIFOLIUM L. Bowdoin Harbor, *flowers* July 21, no. 40.

Pyrola grandiflora Radius. Cape Dorset, *flowers* August 6, no. 60.

Ledum palustre L., var. decumbens Ait. Cannon Inlet, *flowers* August 9, no. 63.

Rhododendron lapponicum Wahl. Bowdoin Harbor, *flowers* July 16, no. 32.

Cassiope tetragona (L.) Don. Bowdoin Harbor, *flowers* July 16, no. 31.

Vaccinium uliginosum L., var. alpinum Bigel. See Fernald, Rhodora xxv. 24 (1923). Bowdoin Harbor, *flowers* July 15.

Vaccinium Vitis-Idaea L., var. minus Lodd. Bowdoin Harbor.

Statice labradorica (Wallr.) Hubbard & Blake. Bowdoin Harbor, *young flowers* July 10, no. 19; Cannon Inlet, *flowers* August 9, no. 65.

Mertensia maritima (L.) Don. Bowdoin Harbor, *flowers* July 10, no. 16.

Pedicularis capitata Adams. Bowdoin and Seal Harbors, *flowers* July 19, no. 35. A notable southern extension, the nearest stations being, apparently, in Ellesmereland and on the Boothia Peninsula.

P. flammea L. Bowdoin Harbor, *flowers* July 21, no. 36.

P. hirsuta L. North Cape, Bowdoin Harbor, *flowers* July 14, no. 4A.

P. lanata Cham. & Schlecht. Bowdoin Harbor, *flowers* June 15, no. 4.

Campanula uniflora L. Seal Harbor, *flowers* July 18, no. 33.

Erigeron uniflorus L. Northwest Cape, Bowdoin Harbor, *flowers* July 14, no. 26.

Antennaria alpina (L.) Gaertn., var. canescens Lange. Seal Harbor, *flowers* July 31, no. 52.

Matricaria grandiflora (Hook.) Britton. Queen's Cape, *flowers* July 31, no. 53.

Chrysanthemum integrifolium Richardson. Cape Dorset, *flowers* August 6, no. 62. This and Dr. Robert Bell's station on Nottingham Island in Hudson Strait are far to the southeast of the former eastern limit, on the Boothia Peninsula.

Taraxacum lyratum (Led.) DC. *T. phymatocarpum* Vahl. Seal Harbor, *flowers* July 22, no. 37. A decided southern extension in eastern America, from Ellesmereland and Melleville Island.

Gray Herbarium.

The Identity of Carex gynandra Schwein.—What must be regarded as the type material of *C. gynandra* is preserved on a sheet from Schweinitz's own herbarium, now at the Philadelphia Academy of Natural Sciences, labelled in Schweinitz's hand "Carex gynandra N[obis] Salem, N. C." This sheet contains the tops of five culms, all without bases, and evidently from three different plants. Culm 1 bears four very short pistillate spikes, 1.75–2.5 cm. long and about 5 mm. thick. The scales are nearly or quite awnless and gradually narrowed at the tip, and scarcely, if at all, exceed the perigynia. The latter are in excellent mature condition and perfectly representative of the form generally passing under the name *gynandra.* Culms 2 and 3 are alike. Their pistillate spikes are proportionally more slender than those of no. 1, 4 mm. thick, exclusive of awns, and 2.3–4 cm. long. The scales are abruptly contracted into short awns. The young perigynia are smooth, relatively broad, and rounded at the apex. These specimens appear to me to be at least as well referable to typical *C. crinita* as to var. *gynandra.* Culms 4 and 5 are again alike. The spikes are longer, 3.5–5 cm. long, the scales short-awned, and the young perigynia distinctly granular-roughened (though not nerved), suggesting at least an approach to *C. Mitchelliana* M. A. Curtis (cf. Rhodora xxv. 17 (1923).)

It is evident, then, that either Schweinitz or someone who arranged his herbarium after his death included in *C. gynandra* three more or less different elements. This is made still plainer by another specimen at the Philadelphia Academy labelled, in a hand which neither Mr. Bayard Long nor I recognized, as coming from "herb. Schw[einitz] sub nom[ine] gynandra—4th series." This specimen is, except for its short scales, very good *C. crinita.* Such confusion is readily explicable when it is recalled that Schweinitz in his original diagnosis distinguished *C. gynandra* solely by its short scales and was followed by Torrey in his earlier work.

Which of the three elements represented on the type sheet of *C. gynandra* should bear that name, in the present-day understanding of the group? Culms 2 and 3, if properly referred to typical *C. crinita,* are accounted for there. Culms 4 and 5 are referable, with slight doubt, to *C. Mitchelliana* and are similarly disposed of there. All are so immature as to make their determination somewhat uncertain. About culm 1, however, there is no possible doubt; it is in excellent condition and, though stunted, otherwise represents perfectly the common plant to which the name *gynandra* is, and long has been generally applied. The reasonable course is to retain Schweinitz's name for that plant. That this is the proper procedure is further indicated by the fact that the specimen of *C. gynandra* sent by Schweinitz to Torrey and now at the New York Botanical Garden, which Mr. K. K. Mackenzie has kindly examined for me, proves also to be *C. gynandra* in the accepted sense.—C. A. WEATHERBY, Gray Herbarium.

NOTES ON TWO ERICACEAE OF THE BOSTON DISTRICT FLORA.—RHODODENDRON NUDIFLORUM (L.) Torr.—Only a single locality (Purgatory Swamp) for this pink azalea is given[1] in the Flora of the Boston District. I have collected flowering specimens in rather moist woods at Stoughton Junction, 29 May 1909, and in dry woods at Westwood or vicinity, 27 May 1911. A portion of the first collection has been deposited in the herbarium of the New England Botanical Club.

VACCINIUM VACILLANS Kalm[2] var. CRINITUM Fernald.—This variety, distinguished by the pubescent twigs and under leaf surface, is not listed in the Flora. Specimens in young fruit were collected in gravelly soil in Stoughton on 15 June 1912 (*Blake* 3672) and on a gravelly bank in Stoughton on 16 June 1912 (3691). A specimen of the first collection has been placed in the New England Botanical Club herbarium.—S. F. BLAKE, Bureau of Plant Industry, Washington, D. C.

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[1] RHODORA **24**: 155. 1922.

[2] In RHODORA **16**: 117, footnote 4 (1914), I stated that this specific name should be accredited to Torrey, not to Kalm. Although, as has been shown by Britten (Journ. Bot. **42**: 55. 1904), Solander and not Kalm was the real namer of the plant, the fact that Torrey (Fl. N. Y. **1**· 444. 1843) published the description of the new species under the heading "Vaccinium vaccillans, Kalm" makes it necessary to cite the name as *V. vacillans* Kalm ex Torr.

The date of the June issue, unpublished as this goes to press, will be announced later.

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